

On the Theory of Thermal Diffusion, Part I, by L. Gurevich, 5 pp.

RUSSIAN, no per, Zhur Eksper i Teoret Fiz, Vol XIV,  
No 1-2, 1944, pp 60-62. CIA 606873

9213260

ATIC F-TS-9348/III,

CEA Reverse Translation (10 Dec 57)  
4 R1696 (OTS TT-63-23999)

Sci - Physics  
Nov 57

62,013

Zhur Eksper i Teoret fiz ~~xMark~~ Vol 14 65-83 1944

The interaction of  $\lambda$ -rays with matter, and  $\gamma$ -radiation  
spectroscopy by G. Latyshev

AECtr 495 at ENL 29 June 1951

On the Theory of Thermal Diffusion, Part II, by  
L. Gurevich, 7 pp. UNCLASSIFIED

RUSSIAN, no per, Zhur Eksper i Teoret Fiz, Vol XIV,  
No 3/4, 1944, pp 121-124. 9213263

Sci - Physics  
Mar 58

ATIC F-TS-9349/III  
CEA R 1697/1944 (Jan. 1944) (47 vols.)  
60,589  
CTC 63-240-51 Russian (Technical)

A New Photoelectric Effect in Cuprous Oxide,  
by I. K. Kikoin, M. M. Noskov, 11 pp.  
RUSSIAN, per, Zhurnal Experimental'noy i  
Teoreticheskoy Fiziki, Vol 14, 1944, pp 123-  
129. P911145967  
ABC SC-T-67-0906

324,430

Sci - Nuclear Science  
May 67

Agency: Picatinny Arsenal  
P.O. 144-690

R-10427-D  
26 May 1969

Title: Theory of Slow Combustion.  
Zh. Emperim i Teor. Fiz. Vol. 14, pp. 240 to 245.

Author: Landau

Source: Zh Emperim i Teor. Fiz. Vol. 14, pp. 240-245.  
(1944).

Language: Russian 6pp

Special instruction: please translate & type 1 copy only.

A Boundary Problem of Electrodynamics and Integral  
Equations of Certain Diffraction Problems, by  
Ya. Feld, 14 pp.

RUSSIAN, no per, Zhur. Kvantovaya Mekhanika, Vol XIV,  
No 9, 1944, pp 330-341.

CCT 1426 B  
CIA/FDD X-2398 47, 349

Sci - Physics  
May 1957 CTS/dex

Measurements at Low Temperature and High Pressure.  
i. Development of a Method for Creating High  
Pressures at Low Temperatures, by B. Lazarev, L. Kan

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XIV,  
No 10-11, 1944, pp 439-447.

National Research Library TT 400

10,979

Scientific - EXPERIMENTAL Physics  
CTS/DEX

Measurement at Low Temperatures and High Pressures.  
II: Superconductivity of Sn and In Under Uniform  
Compression at a Pressure of 1750 Kg/Cm<sup>2</sup>,  
by B. Lazarev, L. Kan,  
RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XIV,  
1944, pp 463-473.  
NASA TT F-9152.

Sci-Phys  
Jan 65  
U.S. GOVERNMENT ONLY

270,968

On the Change in the Superconductivity of Tin Under  
the Influence of Inhomogeneous Deformation, by B.  
Lazarev, A. Galkin, 10 pp.

RUSSIAN, per, Zhur Eksp Teor Fiz, Vol XIV, No 12,  
1944, pp 474-480.

Morris D. Friedman L-117  
\$5.00

Sci - Chemistry  
Mar 59

84, 384

A Compensation Chamber for Analysing the Composition  
of Radioactive Preparations With Respect to Gamma  
Rays, by I. Frank.

RUSSIAN, per, Zhur Eksper. i Secret Fiz, Vol XV,  
No 1-2, 1945, pp 25-31.

Matl Res Lib  
TR.455

Scientific - Physics

CTS/DEX

18,752

On the Theory of the Mechanism of Magnetization of Ferromagnets, by M. Shirobokov, 29 pp.

RUSSIAN, per, Zhur. KMK Ekspres Teoret Fiz,  
Vol XV, No 1/2, 1945, pp 57-76.

MDF S-18<sup>h</sup>  
909315<sup>h</sup>

Sci  
Nov 61

173.335

Quadrupolar and Dipolar Gamma Radiation of Nuclci,  
by A. Migdal, 14 pp.

RUSSIAN, per Zhur Eksp i Teoret Fiz, Vol XV,  
1945, pp 81-88. 9092511

AEC UCRL Tr-822(L)

Sci - Phys  
Jul 62  
List 70

204, 708

Zh Ek i Teoret Fiz Vol 15, page 703-8 (1945)

Determination of the crystal symmetry from the X-ray diffraction patterns. I. Determination of the crystal ~~xxx~~ symmetry from the X-ray diffraction patterns and Friedel's law, by G. Zhdanov.

AEC Trans (avail Brookhaven)

Zh Ek i Teoret Fiz      Vol 15, page 709-20 (1945)

Determination of the crystal symmetry from the X-ray diffraction patterns. II. Rational extinction tables for the determination of X-ray groups,  
by G/ Zhdanov and V. Pospelov.

AEC Trans (avail Brookhaven)

Vibrations of Polyatomic Molecules, by V. Tatevskiy,  
19 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XV, No 8,  
pp 445-458.

Sci Trans Center RT-953

Scientific - Nuclear Physics  
CTS/DEX

14,078

Focusing Properties of the Axial Field  $\epsilon_r = -ar$ ,  
by M. Korzunskiy, 5 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVI,  
No 1, 1946, pp 81-86.

Sci Trans Center  
RT-1898

20,884

Scientific - Physics

Jan 55 CTS/DEX

Zh Ek i Teoret Fiz Vol 16, page 135-50 (1946)

Electronic Theory of the Surface Tension of Metals.  
by A. Samoilovich

AEC Trans (avail. Brookhaven)

On the Theory of the Kompton Effect on a Meson, by  
M. Al'perin, 12 pp      UNCLASSIFIED

RUSSIAN, per, Zhur Eksper i Teoret, Fiz, Vol XVI,  
No 2, 1946, pp 119-128.

Sci Tr Center  
MF-936

Scientific - Physics

15, 386

Supplementary Tables for I. V. Obreimov's Graphical Method for the Determination of the Thickness and Refractive Index of Thin Films on Glass, by E. Branshtein.

RAMSAY, per Zh Ek i Teoret Fiz, Vol XVI, 1946, pp 259-  
265.

AEC Tr (avail. Brookhaven)

Scientific - Physics

16,761

+ |

Autolocalization of the Electron in an Inertially  
Polarizable Dielectric Medium, by S. I. Pekar, 19

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVI,  
1946, pp 335-340.

AEC Tr-4259

Sci - Phys  
Jun 61

156, 076

(NY-4846)

On the Possibility of Rarefaction Shock Waves, by  
Ya. Zel'dovich, 6 pp.

RUSSIAN, PER, Zhur Eksper i Teoret Fiz, Vol XVI,  
No 4, 1946, pp 363, 364.

JPRS 7320

Sci - Phys

Jan 61

136, 574

(NY-4846)

On the Propagation of Shock Waves in Gases With  
Reversible Chemical Reactions, by Ya.  
Zel'dovich, 7 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVI,  
No 4, 1946, pp 365-368.

JPRS 7319

Sci - Phys

Jan 61

136,513

Oscillations of an Electron Plasma, by L. Landau,  
16 pp.

RUSSIAN, bimo per, Zhur Eksper i Teoret Fiz, Vol VI,  
1946, pp 574-586.

AEC Tr 2728

Sci - Electronics; Physics 48,631  
Jun 57

The Theory of Electric Contacts Between  
Metallic Bodies, by J. Frenkel, 18 pp.

RUSSIAN, bimo per, Zhur Eksper I Teoret Fiz,  
Vol XVI, No 4, Apr 1946.

CIA/FDD/X-1455

Scientific - Physics

13,720

Relativistic Quantum Theory of Complex  
Particles, by J. Frenkel, 8 pp.

RUSSIAN, b'no per, Zhur Eksp I Teoret fiz,  
Vol XVI, No 4, Apr 1945.

CIA/PDD/I-1465

Scientific - Physics

13,719

A Phenomenological Theory of Turbulence, by V. G.  
Nevezgliadov, 25 pp.

RUSSIAN, no per, Zhur Elektr i Teoret Fiz, Vol XVI,  
No 7, 1946, pp 614 - 625.

AMC F-TS-7483

Scientific - Physics

RT-870  
Jan 1952 CTS  
40 T 95

High-Current Stages of an Electric Spark in a Gas  
at Atmospheric Pressure, (Part) I, by I. S. Marshak,  
18 pp.

RUSSIAN, pos, Zhar Kosmopol' i Teoret. Fiz., Vol XVI,  
1946, pp 703-716.

AMC Tr 2591

Sci - Elektricheskaya  
Nov 26 1968 Physics 460, 457

High-Current Stage of an Electric Spark in a Gas  
at Atmospheric Pressure. Part II, by I. S. Marshak,  
13 pp.

RUSSIAN, per, Zhur Eksppl i Teoret Fiz, Vol XVI,  
pp 718-727.

Sci - Electricity  
Nov 56 CMS

ABC Tr 2592  
RT 4551  
460, 460

On Ductile Rupture, by B. Ya. Pines, 26 pp.

RUSSIAN, no per, Zhur Eksp i Teoret Fiz, Vol XVI, No 8,  
1946, pp 744-755.

Sci Tr Center RT-327

Scientific - Physics

10,134

Zlunitsyn, S. A. and Rudenko, N. S.  
THE COMPRESSIBILITY OF HYDROGEN AT LOW  
TEMPERATURES, tr. by George N. Kasachkoff and  
George F. Hill, 19 Feb 62 [8]p. 6 refs. AOMC  
Trans. nr 13-62.  
Order from OTS or SLA \$1.10

62-15999

Trans. of Zhurnal Eksperimental'noi i Teoreticheskoi  
Fiziki (USSR) 1946, v. 16, no. 9, p. 776-779.

DESCRIPTORS: \*Hydrogen, Gas cylinders, Com-  
pressors, Temperature, Gases, Vapor pressure.

The paper contains the results of measurement of the  
compressibility of H<sub>2</sub> at T = 65, 0°K, T = 77.7°K,  
T = 90.6°K. An apparatus is described for measure-  
ment of the compressibility of gases at low tempera-  
tures. (Author)

(Physics - Thermodynamics, TT, v. 7, no. 11)

62-15999

- I. Zlunitsyn, S. A.
- II. Rudenko, N. S.
- III. AOMC Trans-13-62
- IV. Army Ordnance Missile  
Command, Redstone  
Arsenal, Ala.

Office of Technical Services

Magnetic Field of Sunspots. Part II.  
By I. E. Gurevich, A. I. Lebedinskiy.  
RUSSIAN, per. /Bureau of Interagency-  
tal'now i Teoricheskoy Fiziki/, Vol XVI,  
No IX, pp 840-848, 1940 9227891  
NASA TT F-257

289,993

Sci-ES04  
Send 65

ZHUR EKSP I TEOR FIZ VOL XVI, No 11

Nov 1946

3 pp

"The Doppler Effect in a Wave Guide"

N. N. Nalov

NRL Translation 113

13T58

(HY-4846)

Luminescence Temperature Measurements of  
Explosions by an Optical Method, by M. N.  
Alestsev, A. P. Belyayev, N. N. Sobolev, B. M.  
Stepanov, 16 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVI,  
No 11, 1946, pp 990-995.

JPRS 7318

Sci - Phys

Jan 61

136,376

Scattering of Slow Neutrons in Crystals, by  
A. Akhiezer, I. Pomeranchuk.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVII,  
1947.

AEC Tr

S.Tr.C. RT935

Scientific - Physics CTS Nov 1949 (2/49)

12,902

On the Theory of the Diffusion of Resonance  
Radiation, by L.M. Biberman.  
RUSSIAN, per, Zhurnal Eksperimentalnoi i  
Teoreticheskoi, vol. 17, 1947, pp. 416-526.  
NTC 70-17011-20A

Annealing of Twin Crystals of Calcite and Sodium Nitrate, by R. I. Charber, 9 pp.

RUSSIAN, per, Zhur Ekspер i Teoret Fiz, Vol 17, (1),  
1947, pp 63-67. No

~~Scanned~~  
Sci Museum Lib No 51/3104 - London

On the Theory of Spin, by V. L. Ginzburg, I. E. Tamm.

Full translation.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVII, No 3,  
1947, pp 227-237.

AEC Tr 1548

Scientific - Physics

TT 305

May 53 CTS

2093

<p>Pershita, Ya. THE EFFECT OF IMPURITIES ON THE ELECTRICAL CONDUCTIVITY OF DIELECTRICS AT HIGH TEMPERATURES. [1960] 19p. 12 refs. Order from LC or SLA m\$2.40, ph\$3.30 61-10799 <i>OTs 62-10938</i></p> <p>Trans. of Zhurnal Eksperimental'noy Teoreticheskoy Fiziki (USSR) 1947, v. 17, no. 3, p. 251-259.</p> <p>The conditions of formation and decomposition of an unstable poorly conducting electrode layer which originates at the dielectric-metal interface is investigated by the method of successive reversal of the field. An explanation of the observed phenomena from the aspect of a definite mechanism of impurity movement is proposed. (Author)</p> <p>(Engineering--Electrical, TT, v. 5, no. 9)</p>	<p>61-10799</p> <p>1. Dielectrics--Conductivity 2. Dielectrics--Impurities 3. Dielectrics--Temperature factors I. Pershita, Ya.</p> <p>151863</p> <p>Office of Technical Services</p>
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ZHURNAL EKSPERIMENTAL'NOY I TEORETICHESKoy FIZIKI  
Vol XVII, No 4, 1947, 13 pp

"Electron and Ion Emission of Thoriated Tungsten in Sodium  
Vapors"

L. N. Dobretsov

AMC Trans # F-TS-5562-E  
(copy in files)

AEC - ATI - 10982

34T80

Stepped Processes in the Inelastic Interaction  
between Atoms and Electrons, by B. M. Yavorskiy,  
17 pp.

RUSSIAN, per, Zh. Eksperimentalnoy i Teoretich.  
Fiziki, Vol 17, No 4, 1947, pp 315-327.  
AEC/ANL/Tr-673-68

Sci/Phy  
Feb 69

374,240

Penkin

RUSSIAN, per, Zh Eks i Teor Fiz XVII, 1947,  
pp. 355-356.

\*PL 480  
OT3 61-11437

Dec 61

<p>Stepanov, P. E. ON THE RELAXATION PHENOMENA IN A SHOCK WAVE IN GAS (O Relaksatsionnykh Yavleniyakh v Udarnoi Volne v Gaze). 25p. (foreign text included). 7 refs. DTC-3. Order from OTS, ETC or DTC \$1.65 62-28790</p> <p>Unedited draft trans. of <u>Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki</u> (USSR) 1947, v. 17, no. 5, p. 377-385.</p> <p>DESCRIPTORS: *Shock waves, Gases, Theory.</p> <p>(Physics, TT, v. 10, no. 2)</p>	<p>62-28790</p> <p>I. Stepanov, P. E. II. DTC-3 III. Danish Translations Centre, Roskilde</p> <p>Office of Technical Services</p>	
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On the Theory of the Diffusion of Resonance  
Radiation, by L. M. Biberman.  
RUSSIAN, per, Zhurnal Eksper. Teoret.  
Fiziki, Vol 17, No 5, pp 416-426, 1947  
AEC ORNL-Tr-681 9230178

SLA - K-4252

Sci-NS&T  
Nov 65

290,674

ZHUR EKSP I TEOR FIZ Vol XVII, No 6

Jun 1947

8 pp

"A Spectroscopic Study of the Movement of Ions in Plasma"

S. E. Frish, Yu. M. Kagan

Done by AEC  
Prelim Union List of Trans  
Available T1B

11T68

Zhur Ets i zos Fig Val 17, # 7, pp 601-6 (1947)

Phenomenon of Artificially Induced Shear, Part I  
A. V. Stepanov

X-ray trans 973/NR 2 324  
(January listing)

...atic equations in quantum mechanics, by  
N. N. Bogolyubov, K. P. Gurov, 6 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVII,  
No 7, 1947, pp 614-628.

MDF B-150

Sci.

CIS, Vol III, No 7

133,032

Nov 60

On the Nonrelativistic Quantum Theory of Particles With  
Additional Rotational Degrees of Freedom, by S. V.  
Pustilov

Russia, per, Zhur Eksp i Teoret Fiz, Vol XVII,  
No 7, pp 629-637, 1947.

AEC-TR-1531

Scientific - Physics

1301

V  
(FDD 21953)

A ~~Russian~~ Controlled Optical Shutter, by N. N.  
Sobolev, 13 pp.

RUSSIAN, no per, Zhur Eksper i Teoret Fiz,  
Vol XVII, No 7, Moscow/Leningrad, Jul 1947,  
pp 655-660.

CIA/FDD/U-6379

USSR

Sci - Physics, optics, &  
photography

18/188

On the Domain Structure of Ferromagnetic Bodies  
in the Presence of a Magnetic Field, by  
L. Kholodenko, 30 pp.

RUSSIAN, per, Zhur Eksp i Teoret Fiz,  
Vol XVII, No 8, 1947, pp 696-707

SLA 60-14201  
AEC (avail Board Library)

Sci  
Feb 62  
Vol III, No 11

184,696

On the Phenomenon of Mechanical Twinning, A. V.  
Stepanov.

Vol 1

RUSSIAN, per, Zhur Eksper i Teoret Fiz, No 8,  
1947, pp 713-723.

~~50/3663~~ Sci. Museum Lib No 50/3663 - London

AEC Tr. 1099  
Dec 51 CTS

f, EC.

LB/G-3052 Uncl.

CONSTRUCTION OF THE GREEN TENSOR FOR THE FUNDAMENTAL EQUATION OF ELASTICITY THEORY IN THE CASE OF AN UNBOUNDED ELASTICALLY ANISOTROPIC MEDIUM. Lifshits, I. M.; Rozentsveig, L. N. Translated by J. E. Baker (Atomic Energy Research Establishment, Harwell, Eng.) from Zh. Eksp. Teor. Fiz., 17: 783-91(1947). 16p.

mathematics; physics (solid-state); translations

ND-34 NP RC

Unlimited

Agency: Picatinny Arsenal  
P.O. Req. 50-70 R-11031-B  
6 Nov. 69

Title: The Passage of a Spark Discharge.  
pp. 862 to 867.

Author: I. S. Abramson, et al.

Source: Zh. Eksperim. i Teor. Fiz. Vol. 17 (1947).

Language: Russian. 6pp

Special instruction: Please translate & type 1 copy only.

Construction of the Green Tensor for the Fundamental Equation of Elasticity Theory in the Case of an Unbounded Elastically Anisotropic Medium,  
by I. M. Lifshits.

RUSSIAN, per, Zh Eksp i Teore Fiziki, Vol 17(9),  
1947, pp 783-791.

\*AEC/LB/G-Tr-3052

Sci/Phy  
Feb 71

The Diffraction Field of an Ideally Conducting Sphere, by A. R. Volpert, & A. I. Potekhin, 8 pp.

RUSSIAN, per, Zhur Eksp i Teoret Fiz, Vol XVII,  
No 9, 1947, pp 602-613.

CIA/FDD X-2424

Sci - Physics  
May 1957 CMS/dex

47, 336

Surface Effects in Superconductors in Intermediate States, by A. Meshkovskiy, A. Shal'nikov, 33 pp.

RUSSIAN, per, Zhur Eksptl Teort Fiz, Vol XVII, No 10,  
1947, pp 851-861.

SLA Tr R-886

Sci - Electricity, Physics

52, 284

Sep 57

Zh Ek i Teoret Fiz

Vol 17, No 10 (1947)  
page 883-8

~~SECRET~~  
Magnetospin resonance in ferromagnetic substances on  
centimeter waves, by E. K. Zavoiski

AEC Trans (avail Brookhaven)

S-176/60

(NY-4832)

Formation of a Supercompressed Detonation Wave  
a Narrowing Tube, by B. V. Ayvazov, Ya. B.  
Zel'dovich, 27 pp.

RUSSIAN, per, Zhur Eksp i Teoret Fiz, Vol XVI  
No 10, 1947, pp 889-900.

JPBS 5735

Sci - Phys

Oct 60

128,45%

Some Theorems on the Group Velocity of Electro-  
magnetic Waves, by S. M. Rytov.  
RUSSIAN, per, Zh Eksperiment i Teor Fiz, Vol  
17, No 10, 1947, pp 930-936.  
Dept of Navy APL/JHU T-2306

Sci-Phys  
Oct 69

393,327

Some Theories on the Group Velocity of  
Electromagnetic Waves, by S. M. Rytov.

RUSSIAN, per, Zhur Ekspres Molos i Med,  
Vol XVII, No 10, 1947, pp 930-936.

ASLIB GB 10XEXIB 1527

Sci - Electron, Med

192, 734

Apr 62

Study of Alkaline-Earth Phosphors Which Have High  
Sensitivity to Infra-Red Rays, by V. L. Levshin,  
V. V. Antonov-Romanovskiy, Z. L. Morgenshtern,  
et al, 20 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVII,  
1947, pp 949-963. -9201237

AEC UCRL Tr 856(L)

Sci - Phys  
Jan 63

219, 417

Noskov, M. M. and Sokolov, A. V.  
THE MAGNETO-OPTICAL KERR EFFECT AS A  
FUNCTION OF THE THICKNESS AND OPTICAL  
CONSTANTS OF THIN FILMS. II. (Zavisimost' Mag-  
netoopticheskogo Effekta Kerrra ot Tolshchiny i Opti-  
cheskikh Konstant Tonkikh Plenok) tr. by D. R. H.  
Phillips. 24 June 60, 8p. (35 equations, 3 figs. omitted)  
9 refs. Trafford Park Trans. no. 2844; M2031.  
Order from LC or SLA m\$1.80, ph\$1.80 61-13392

Trans. of [Zhurnal Eksperimental'noy i Teoreticheskoy  
Fiziki] (USSR) 1947, v. 17, no. 11, p. 969-975.

The explanation of the influence of thin films on the  
magneto-optical Kerr effect ensues from resolution of  
a system of Maxwell equations for the chosen model of  
the phenomenon, and reduces to a special case of in-  
terference of polarised light, in which there is rotation  
of the plane of polarisation of one of the interference  
beams owing to reflection from the magnetised mirror.  
(See also 61-13393)

(Physics--Theoretical, TT, v. 5, no. 2)

61-13392

1. Thin films--Magnetic properties
2. Thin films--Optical properties
3. Title: Kerr effect
- I. Noskov, M. M.
- II. Sokolov, A. V.
- III. AEI(M) TP/T-2844
- IV. DSIR LLU M. 2031
- V. Associated Electrical Industries (Manchester) Ltd. (Gr. Brit.)

141, 183

Office of Technical Services

<p>Noskov, M. M. THE MAGNETO-OPTICAL KERR EFFECT AS A FUNCTION OF THE THICKNESS AND OPTICAL CONSTANTS OF THIN FILMS. I. (Zavisimost' Magnetoopticheskogo Effekta Kerrra ot Tolshchiny i Opticheskikh Konstant Tonkikh Plenok) tr., by D. R. H. Phillips. 24 June 60, 5p. (4 equations, 1 fig. omitted) 5 refs. Trafford Park Trans. no. 2843; M2032. Order from LC or SLA mi\$1.80, ph\$1.80 61-13393  Trans. of [Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki] (USSR) 1947, v. 17, no. 11, p. 964-965.</p> <p style="text-align: center;"><i>14, 182</i></p> <p>(Physics--Theoretical, TT, v. 5, no. 2)</p>	<p>61-13393</p> <p>1. Thin films--Magnetic properties 2. Thin films--Optical properties 3. Title: Kerr effect 4. Noskov, M. M. II. AEI(M) TP/T-2843 III. DSIR LLU M. 2032 IV. Associated Electrical Industries (Manchester) Ltd. (Gt. Brit.)</p>	
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Office of Technical Services

Sobolev, N. N. INVESTIGATION OF THE ELECTRICAL FUSION OF THIN WIRES. June 60, 31p. 7 refs. Picatinny Arsenal Trans. no. 100; AD-240 588. Order from I.C or SLA m\$3.00, ph\$6.30 60-23115  Trans. of Zhurnal Eksperimental'noj Teorieticheskoy Fiziki (USSR) 1947, v. 17, p. 986-997.	60-23115  1. Wire--Melting 2. Electric discharges-- Physical effects 3. Spark shadowgraph photography I. Sobolev, N. N. II. PA Trans-100 III. Joint Publications Research Service, Washington, D. C. IV. AD-240 588  142,995
Results are presented of an investigation of a condenser discharge through thin wires, obtained with the aid of an image scanning controlled optical shutter and instantaneous shadow photography. At the discharge of a condenser through a copper wire, a fusion-like dispersion of the material in individual fragments takes place. This is followed by a current break, conditioned by the occurrence of a great number of fusions; after the latter have been filled up with metal vapors - phase of the gas discharge. (Author)  (Physics--Theoretical, TT, v. 5, no. 3)	Office of Technical Services NAFO 60-4-1, Roll 1, Reel 10750

Zh Ek i Teoret Fiz Vol 17, page 1106-13 (1947)

Calculation of the Lowest Excited Levels of the  
Naphthalene Molecule.  
by A. S. Davydov.

AEC Trans (avail. Brookhaven)

Measurement of Relative Forces of Vibrators in  
Cr Multiplets, by N. P. Penkin.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVII,  
No 12, 1947, pp 1114-1121.

ERDL, Ft Belvoir T-1458  
★ PL-490 OTS 61-11437

179, 359

Sci - Phys  
Jan 62

Kapitsa, P. L. WAVE FLOW IN THIN FILMS OF VISCOUS LIQUIDS. I. FREE FLOW [Volnovoe Tepenie Tonikikh Sloev Vyzkoi Zhidkosti, I]. [1961] [16]p. 4 refs. C. E. Trans. 1768; [DSIR LLU] M. 3249. Order from OTS or SLA \$1.60	61-27621	
Trans. of <u>Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki</u> (USSR) 1948, v. 18, no. 1, p. 3-18. Another trans. is available from INSDOC as T. 832a.	I. Kapitsa, P. L. II. Title: Free... III. CB Trans-1768 IV. DSIR LLU M. 3249 V. Central Electricity Generating Board (Gt. Brit.) VI. INSDOC T. 832a VII. Title: Undulatory flow of thin layers of viscous liquid	
9201845 DESCRIPTORS: Liquids. Viscosity. *Fluid flow. *Wave transmission	180611 NLL M.4296 AEC-TK-5517	
A theoretical study is presented of the flow of films of viscous liquids under the action of a constant volumetric force and with a consideration of surface tension. An approximate solution of the equation of flow is found showing that wave flow, which was observed (Mechanics--Hydrodynamics, TT, v. 6, no. 9) (over)	Office of Technical Services	
OTS and SLA 62 - 34250		

Wave Flow of Thin Layers of a Viscous Liquid,  
Pt. 2. Flow at Contact with a Gas Stream, and Heat  
Transfer, by P. L. Kapitsa, 13 pp.  
RUSSIAN, per, Zhur Eksperimental i Teoret Fiz,  
Vol XVIII, No 1, 1948, pp 19-28.  
AEC-tr-6179

Sci - Eng  
Jul 66

305,892

Isothermal Growth of Nuclei During Dissociation of  
a Supersaturated Solution, by B. Y. Pines, 29 pp.

RUSSIAN, per, Zhur Exper i Teoret Fiz, Vol 18, No 1,  
USSR, Jan 1948, pp 29-44.

NRL 175

CIA 10143

The Probabilitiy of Formation of Crystalline Muclei,  
by F. L. Gorsky, 8 pp.

RUSSIAN, per, Zhur Exper i Teoret Fiz, USSR, Vol 18,  
No 1, Jan 1948, pp 45-47.

NRL 174

CIA 11159

RT-853

ZHUR EKSPER I TEORET FIZ

Vol XVIII, No 1, 1948,  
102-103 1½ p

"Research on the Depth of Penetration of a Magnetic Field  
into a Solid Superconductor"

A. I. Shal'nikov  
Yu. V. Sharvin

NRL translation 203

T-7

D-113

not published

AR 14 Mar 1949

R T-668

41T101

ZHUR EKSPER I TEORET FIZ Vol XVIII, No 2 Feb 1948  
FP 105-129

"New Opinion on Electronic Conductivity in Ionic  
Crystals" 5 pp

S. I. Pekar

NRL Trans 215

RT- 803

44T84

ZHUR EKSPER I TEORET FIZ Vol XVIII, No 2 Feb 1948

"Influence of Distribution of Electrons According to  
Level of Localization on Course of Luminescent Processes  
in CaS-SrS-Ce, Sm, La-Phosphori, and Number of Multiple  
Localized Electrons" 15 pp. 149-163

V. L. Levshin

Trans by NRL  
NRL TRAN. 218

RT-671

44T88

Ienov, N. I.  
A MASS SPECTROMETER STUDY OF THE FORMATION OF NEGATIVE HALOGEN IONS WHEN HALIDES REACT WITH AN INCANDESCENT TUNGSTEN SURFACE. [1961] 18p. 16 refs. [JPRS]-R-367-N/a.

Order from LC or SLA m1\$2.40, ph\$3.30 61-19493

Trans. of Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki (USSR) 1943, v. 18 [no. 2] p. 174-186.

A mass spectrometer analysis was made of negative ions formed by surface ionization of NaCl, KCl, RbCl, CaCl, KI, KBr, KF, WCl<sub>6</sub> and ThCl<sub>4</sub> molecules on incandescent tungsten. In all instances, the negative atomic halogen ions entering into the composition of the salt under investigation were disclosed. Upon ionization of ThCl<sub>4</sub>, not only were Cl<sup>-</sup> ions formed but also Cl<sub>2</sub> ions. It was ascertained that the temperature dependency of formation of the negative atomic ions conforms to a thermodynamic formula analogous to the (Chemistry--Physical, TT, v. 5, no. 11) (over)

61-19493

1. Mass spectrometers-- Applications
  2. Halides--Chemical reactions
  3. Tungsten--Surface properties
  4. Alkali metal halides-- Ionization
- I. Ienov, N. I.  
II. JPRS-R-367-N/a  
III. Joint Publications Research Service, New York

109(1)

Office of Technical Services

ZHUR EKSPER I TEORET FIZ Vol XVIII, No 2 Feb 1948

"Theory of Adsorption Spectrum of the Diphenyl  
Molecule" 9 pp, pp 210-218.

A. S. Davydov

NRL Trans 224

NLL M.2513

44T83

Electrical Conductivity of Ferromagnetic Metals at  
Low Temperatures, by S. V. Vonsovskiy, 6 pp.  
RUSSIAN, per, Zhur Ekspерим i Teoret Fiz, Vol XVII,  
No 2, 1948, pp 219-223, 9090359  
FSTC 381-T64-115

Sci - Phys  
Apr 65

276,367

Luminescence Spectra of Zinc Oxide,  
by V. I. Vergunas, F. F. Gavrilov.  
RUSSIAN, per, Zh. Eksperim i Teor Fiz,  
Vol XVIII, No 2, 1948, pp 224-227.  
NASA TT F-10,454

Sci-Phys  
Jan 67

317,877

The Existence in Cosmic Rays of Positive and Negative Particles with Masses Greater Than That of a Meson, by A. I. Abibanyan, A. I. Alikhanov, A. Vayzenberg.

RUSSIAN, per, Zhur Eksp i Teoret Fiz, Vol 18, No 3, 1948.

See Upton, New York State: Brookhaven National Lab,  
Guide to Russian sci per lit, Vol 1, No 7,  
Dec 1948, pp 1-35.

Sci Museum Lib No 50/3259 - London

6  
11/11/48 OTS 61-17450

Wave Flow of Thin Layers of A Viscous Liquid. Part 2. Flow  
At Contact With A Gas Stream, and Heat Transfer, by  
P. L. Kapitsa, 13 pp.  
RUSSIAN, per, Zh. Eksperim. i Teor. Fiz., Vol XVIII, 1948,  
pp 19-28.

AEC-Tr-6179

Sci - Phys  
Feb 64

200, 241

Wave Flow of Thin Films of Viscous Liquids.  
I. Free Flow, by P. L. Kapitsa.

RUSSIAN, per, Zhur Eksper Teoret Fiz, Vol XVIII,  
No 3, 1948, p 194.

MLL M. 2751

Sci - Phys

180,035

Jan 62

ZHUR EKSPER I TEORET FIZ Vol XVIII, No 4 Apr 1948

"Some Mathematical Methods of the Theory of the Scattering of Particles" 9 pp.

I. Ye. Tamm

NRL Trans. No 245

#15

63T80

RT 711

On Changes in the Electric Resistance of Tellurium in a Magnetic Field at Low Temperatures,  
by R. A. Chentsov, 18 pp.  
RUSSIAN, 18 pp., Zhur Eksperimental i Teoret Fiz SSSR, Vol XVIII, No 4, 1948, pp 374-385.

9696231

FSTC 381-T64-55

Sci - Phys  
Mar 65            276,325

The Effect of the Earth's Magnetic Field on  
Large Auger Showers, by V. V. Vladimirschiy, 16x44

RUSSIAN, b/wo par, Zhur Eksp 1 Teoret  
ekk fiz, Vol XVIII, No 4, 1948, pp 392-401.

11/12/2009

FTD  
NAEC F-1B-8936/III

Sci - Geophysics

Jun 1956

40,803

AER-NAL-TT-1080

NAEC C-4464

OT 7479

The Inelastic Scattering of Neutrons in Ferromagnetic Substances at Low Temperature, by G. Avak'yants.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVIII,  
No 5, 1948.

AEC Tr

Sci Dm 51/2733

Scientific - Physics

15,069

Oct 49 CIS

Temperature Dependence of the Normal Density of  
Helium II, by E. L. Andronikashvili.

RUSSIAN, per, Zhur Eksp i Teoret Fiz, Vol XVIII, No 5,  
1940, pp 424-428.

AEC Tr 198

Sci Mus Lib 50/1112

12,782

Scientific - Physics

June CTS

Viscosity of the Normal Components of Helium II,  
by E. L. Andronikashvili.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XVIII, No 5,  
1948, p 129.

AEC Tr 199

Sci Mus Lib 50/1113

Scientific - Physics      June CPS

12,783

Second Sound in Helium II Under High pressures, by  
V. P. Peshkov, K. N. Zinov'yeva. UNCL

RUSSIAN, per, Zhur Ekspres i Teoret Fiz, Vol XVIII,  
No 5, 1948, pp 438-443.

CFSTI TT-64-71348

DSIS, DRB, CANADA

T 281 R

Sci - Phys  
Jun 59

89,571

13 235

Ca-1

GAL'PERIN F. M.

Atomic magnetic moments of metals of the iron group and  
interatomic distances

Zhur. Eksptl'. i Teoret. Fiz., 19, No. 5, 451-459 (1949)

TT 352 - English

E u r a t o m

Neutron Refraction, by A. Akhiezer, and I.  
Pomeranchuk.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol 18,  
No 5, 1948, pp 475-478.

See Upton, New York State: Brookhaven National  
Laboratory.

Guide to Russian scientific periodical  
literature, Vol 1, No 6, Oct 1948, pp 1-5.

Sci. Museum (No Lib) 50/3257 - London

also No 5-1/2057 R

ZHUR EKSPER I TEORET FIZ Vol XVIII, No 6, 5 pp, Jun 48

"Thermodynamic Theory of Spin-Spin Relaxation in Para-magnetic Materials"

I. G. Shaposhnikov

Scheduled for Translation  
by NRL letter dated 2/2/49  
NRL Translation #201

6/49T99

Zhur Eksper i Teoret Fisiki  
Vol 18, No 6, 1948  
pp 519-524

Spectroscopic Investigation of the Motion of Ions in a  
Plasma, by S. E. Frish and Yu. M. Kagan

AEC Trans

Zhur Eki i Zes 7.13      Vol 18, #6 , no 539-567 (1978)

The Finding of Distribution Functions for Non-Equilibrium  
Systems in The Presence of Transfer Phenomena

E.A. Vanriet -  
G.B. Spirak

AME Trans.  
F-75-7463

U.S. RT-93 C

Field Theory of Extended Particles, by D. I.  
Blokhintzev, 17 pp.

RUSSIAN, per, Zhur Eksper i Teoret, Vol XVIII,  
No 6, 1948, pp 566-574.

Sci Mu Lib No 52/0985  
ADC Tr 222  
Am Math Soc Tr T-38

Scientific - Physics

151188

The Theory of Resonance Scattering of Particles,  
by A. Akhiezer, and I. Pomeranchuk.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol 18,  
No 7, 1948, pp 603-613.

SEE Upton, New York State: Brookhaven National  
Laboratory.

Guide to Russian scientific periodical  
literature, Vol 1, No 6, Oct 1948, pp 6-12.

V  
Sci Museum Lib No 50/3258 - London

9/497-1

Kinetic Equations in the Theory of Super-Flow,  
by N. N. Bogolyubov, 17 pp.

RUSSIAN, bimo per, Zhur Eksper i Teoret Fiz,  
Vol XVIII, No 7, 1948, pp 622-630.

Sci Mus Lib No 55/1122  
Nat Res Lib TT-518

Sci - Physics  
CTS 71/Aug 1955

25,739